a left side detecting element (photodetector) 51 disposed at a right side of an axis L_{cent}, which is a reference of 0° in aximuth, and a right side detecting element (photodetector) 52 disposed at a left side of the axis L_{cent}. A shading member 54 having a through hole 53 is disposed above the detecting elements 51, 52. The right side detecting element 51 and the left side detecting element 52 receive light from the right side and the left side of the axis L_{cent}, respectively, and output signals corresponding to quantities of light. When azimuth ∅ is 0°, 30°, 60°, or 90° as shown in FIGS. 24A to 24D, output ratios are as shown in FIG. 23. When azimuth ∅ is 0°, right side and left side output ratios CR_R, CR_L are 0.50, respectively. The left side and right side output ratios CR_L, CR_R are represented by the following formulas:

See the attached Appendix for the changes made to effect the specification.

IN THE CLAIMS:

Please enter the following amended claims:

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1. (Amended) A sensor for detecting a quantity of light, comprising:

a housing having a center axis along a direction in which light enters the sensor when an azimuth is zero with respect to said housing, the center axis dividing a surface of the housing into a first region and a second region;

a light sensing portion disposed in said housing to sense incident light, including:

a first photodetector disposed on the second region of the housing;

a second photodetector disposed on the first region of the housing;

a central photodetector disposed on both the first region and the second region of the housing across the axis, and desensitized upon output thereof in comparison with those of the first photodetector and the second photodetector, wherein the first, second and central photodetectors are arranged in an identical plane; and

a shading member disposed above the sensing portion and having a light transmittance part and a shading part, so as to introduce light through the light transmittance part and determine an incident area in the sensing portion where the light is incident through the light transmittance and a non-incident area in the sensing portion where the light is not incident, wherein;

the first photodetector and the central photodetector cooperatively detect a first quantity of light entering the sensor from a side of the first region with respect to the axis; and

the second photodetector and the central photodetector cooperatively detect a second quantity of light entering the sensor from a side of the second region with respect to the axis.

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2. (Amended) The sensor of claim 1, further comprising a signal processing circuit for processing first, second, and third signals respectively outputted from the first photodetector, the second photodetector, and the central photodetector, wherein:

cont.

the third signal from the central photodetector is desensitized with respect to the first and second signals to produce first and second desensitized signals in said signal processing circuit, and the first and second desensitized signals are added to the first signal and the second signal, respectively.

9

8. (Amended) A sensor for detecting a quantity of light incident on a vehicle, comprising:

a housing having an axis along a front and rear direction of the vehicle in which light enters the sensor when an azimuth is zero with respect to said housing, the axis dividing a surface of the housing into a first region and a second region;

a first photodetector disposed on the second region of the housing, for outputting a first signal corresponding to a quantity of light incident thereon;

Q3

a second photodetector disposed on the first region of the housing, for outputting a second signal corresponding to a quantity of light incident thereon;

a central photodetector disposed on both the first region and the second region of the housing across the axis, and desensitized upon output thereof in comparison with those of the first photodetector and the second photodetector, for outputting a third signal corresponding to a quantity of light incident thereon, wherein the first, second and central photodetectors are arranged in an identical plane;

a shading member disposed above the first and second photodetectors and having a light transmittance part and a shading part, so as to introduce light through the light transmittance part and determine an incident area in the first, second and central photodetectors where the light is incident through the light transmittance and a non-incident area in the first, second and central photodetectors where the light is not incident; and

a signal processing circuit provided on the housing for determining a first quantity of light entering the sensor from a side of the first region based on the first signal and the third

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A3 Cont

signal, and for determining a second quantity of light entering the sensor from a side of the second region based on the second signal and the third signal.

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12 11. (Amended) The sensor of claim 10/9, wherein the light transmittance part of the shading member is disposed above a portion of the housing, the portion is located at a rear side of the vehicle with respect to the signal processing circuit.

13 15 12. (Amended) A sensor for detecting a quantity of light, comprising:

a housing having a center axis along a direction in which light enters the sensor when the azimuth is zero with respect to said housing, the center axis dividing a surface of the housing into a first region and a second region;

a first photodetector for detecting a first quantity of light entering the sensor from a side of the first region, the first photodetector having a first main portion entirely disposed on the second region and a plurality of first protrusions protruding from the first main portion toward the first region across the center axis; and

A4

a second photodetector for detecting a second quantity of light entering the sensor from a side of the second region, the second photodetector having a second main portion entirely disposed on the first region and having a plurality of second protrusions protruding from the second main portion toward the second region across the center axis; and

a shading member disposed above the first and second photodetectors and having a light transmittance part and a shading part, so as to introduce light through the light transmittance part and determine an incident area in the first and second photodetectors where the light is incident through the light transmittance and a non-incident area in the first and second photodetectors where the light is not incident;

wherein:

the first main portion has a first predetermined width to be entirely disposed at the second region, and the first main portion is a first common portion to which said plurality of first protrusions are connected;

the plurality of first protrusions has a first width to extend from the second region to the first region;

the second main portion has a second predetermined width to be entirely disposed at the first region, and the second main portion is a second common portion to which said plurality of second protrusions are connected; and

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the plurality of second protrusions has a second width to extend from the first region to the second region.

14. (Amended) The sensor of claim 12, wherein the plurality of first protrusions and the plurality of second protrusions are alternately disposed along the center axis.

See the attached Appendix for the changes made to effect the above claims.

Please add the following new claims:

--16. (New) The sensor of claim 1, wherein an output signal outputted from the central photodetector determines an information related to azimuth of the light entering said sensor cooperatively with output signals respectively outputted from the first photodetector and the second photodetector.

17. (New) The sensor of claim 8, wherein an output signal outputted from the central photodetector determines an information related to azimuth of the light entering said sensor cooperatively with output signals respectively outputted from the first photodetector and the second photodetector.

18. (New) The sensor of claim 8, wherein the third signal from the central photodetector is desensitized with respect to the first and second signals to produce first and second desensitized signals in said signal processing circuit, and the first and second desensitized signals are added to the first signal and the second signal, respectively.

19. (New) The sensor of claim 12, wherein the first and second widths are set at such a degree to be the same as the first and second predetermined widths.--